

REMARKS / DISCUSSION OF ISSUES

Claims 1-6 are pending in the application. Claims 1, 5 and 6 are the independent claims.

New Claim

New claim 6 is added, and does not include any new matter. Examination of new claim 6 is respectfully requested.

Objections to the Specification

The Office Action objects to the specification. In particular, the Office Action objects to terms in equation 4 and to variable in equations 3 and 4. Equations 3 and 4 as filed appear to be correct. Notably, the variables noted in the Office Action are different, with different symbols over each objected-to variable.

In view of the foregoing, it is respectfully submitted that one of ordinary skill in the art will readily understand the various terms noted above from the filed application. Accordingly, withdrawal of the objection to the specification is earnestly solicited.

Objections to the Drawings

Figs. 2 and 4 were objected to. Fig. 2 has been corrected to include the suggested changes. A Replacement Sheet is provided as an attachment to the present response. With regard to the sign inverter 432, the output appears to

be correct, namely the input multiplied by (-1). Thus, it is believed that this objection is improper.

In view of the foregoing, it is respectfully submitted that the objections to the drawings are moot. Accordingly, withdrawal of the objection to the drawings is earnestly solicited.

Claim Objections

The objections to the claims are believed to be moot in view of the present response. In particular, claims 1, 2 and 5 have been amended to overcome the noted objections. Accordingly, withdrawal of the objection to the claims is earnestly solicited.

Rejections Under 35 U.S.C. § 112, ¶ 2

Claims 1-5 were rejected under 35 U.S.C. § 112, ¶ 2 for failing to particularly point out and distinctly claim the subject matter that applicants regard as the invention. For at least the reasons that follow, it is respectfully submitted that this rejection is improper and should be withdrawn.

With regard to claim 1, the Office Action asserts that the 'means for determining a first value' and the 'means for determining a second value' are not clearly set forth in the specification. In particular, the Office Action asserts that it is not clear which element is 'referred as the means for determining a first value, particularly when the means determines the first value according to the first value itself.' The Office Action rejects claim 2 by similar reasoning with regard to 'means for determining a second

value.' Claim 5 is similarly rejected. As such, the following traversal is applicable to the rejection of claim 5 as well.

The filed application recites, *inter alia*, that the demodulator 134 is configured to accept the received modulated signal 120 and to generate a received signal (RS) and the log likelihood ratio (LLR) for each bit in the received signal 138. Fig. 2 illustrates one embodiment in which the LLR may be determined by, for example, the demodulator 134. It is respectfully submitted that the filed specification and drawings clearly describe the determining of the first and second values recited in claims 1-5. Therefore, it is respectfully submitted that the rejection of claims 1-5 is improper and should be withdrawn. Moreover, it is emphasized that the filed application is to be relied upon for ascertaining the meaning of 'the first value' and 'the second value' as set forth in claims 1-5. (Kindly refer to page 4, line 22 through page 11, line 11 for support for the above assertions.)

With particular regard to the rejection of claims 3 and 4, it is respectfully submitted that the filed application discloses via Fig. 4 one embodiment for determining the value $\text{LLR}(m) / (\text{Es}/\text{N}) * \text{Ao}$. The description of this embodiment refers to the illustrative method described in conjunction with Fig. 2 and thus, Fig. 1. Claim 3 recites 'the means for determining the first value further comprises an adder and a sign inverter connected to the adder.' Claim 4 recites a similar feature with regard to the means for determining the second value.

As described in the filed application, Fig. 4 illustrates one embodiment for determining LLR discussed with reference to Fig. 2 in the context of a VLSI architecture. Claims 3 and 4 merely further define components of the 'means for determining the first value' and the 'means for determining the second value.' It is emphasized that the term 'comprising' is open-ended. Further details of the function of the adder and sign inverter in the context of the example embodiments may be found at page 11, line 30 through page 13, line 21. Again, it is emphasized that the filed application is to be relied upon for ascertaining the meaning of 'the first value' and 'the second value' as set forth in claims 3 and 4.

Claim 5 is rejected for reasons very similar to the rejection of claim 1. Similarly the traversal of the rejection of claim 5 is substantially identical to the traversal of claim 1 set forth above.

Conclusion

In view of the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:
Phillips Electronics North America Corp.



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Amendments to the Drawing Figures:

The attached sheet of drawings includes changes to Fig. 2. This sheet replaces the original sheet including Fig. 2. In Fig. 2, blocks 218 and 224 have been changed as suggested by the Office Action.

Attachment: Replacement Sheet (Fig. 2)